UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/827,238	04/20/2004	Akitomo Ohba	F-13110	2544

21254 7590 01/08/2009

MCGINN INTELLECTUAL PROPERTY LAW GROUP, PLLC
8321 OLD COURTHOUSE ROAD
SUITE 200
VIENNA, VA 22182-3817

EXAMINER	
LANIER, BENJAMIN E	

ART UNIT	PAPER NUMBER
2432	

MAIL DATE	DELIVERY MODE
01/08/2009	PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

DETAILED ACTION

Continued Examination Under 37 CFR 1.114

1. A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on 18 August 2008 has been entered.

2. All claims are drawn to the same invention claimed in the application prior to the entry of the submission under 37 CFR 1.114 and could have been finally rejected on the grounds and art of record in the next Office action if they had been entered in the application prior to entry under 37 CFR 1.114. Accordingly, **THIS ACTION IS MADE FINAL** even though it is a first action after the filing of a request for continued examination and the submission under 37 CFR 1.114. See MPEP § 706.07(b). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

3. A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Response to Arguments

4. Applicant argues, "Luke can only teach the concept of generally deleting files. That is, Luke does not teach or suggest what duplicate files are deleted or in what order the files are deleted." This argument is not persuasive because Luke discloses that the storage system is examined to determine if duplicate (i.e. exact) data exists within the storage system such that the duplicate data can be deleted for the preservation of storage space (Col. 2, line 62 – Col. 3, line 14).

5. Applicant argues, "Luke does not teach or suggest, deleting files that have '*a general similarity that is highest among the pieces of fingerprint data*,' as recited in independent claim 2." In response, the Examiner would like to point out that there is no general similarity higher than duplicate.

6. Applicant's allegation that Hillhouse "teaches against the present invention" is not persuasive because Applicant has failed to point out where Hillhouse specifically says that you wouldn't want to delete duplicate data.

Claim Rejections - 35 USC § 103

7. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

8. The factual inquiries set forth in *Graham* **v.** *John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

9. Claims 2-4, 6-8, 13, 18 are rejected under 35 U.S.C. 103(a) as being unpatentable over Hillhouse, U.S. Publication No. 2002/0154793, in view of Luke, U.S. Patent No. 7,130,867. Referring to claims 2, 3, 6, 7, Hillhouse discloses a biometric authentication system wherein a user's fingerprint biometrics are initially enrolled for storage as a biometric template ([0053] & [0056]), which meets the limitation of a fingerprint registration data section in which pieces of fingerprint data are registered. Subsequently a user provides a fingerprint sample for authentication ([0059] & Figure 2), which meets the limitation of a fingerprint read section which reads one fingerprint data. The fingerprint sample is compared against the biometric samples associated with that user that are stored in a database ([0059]-[0060] & Figure 2), which meets the limitation of a fingerprint collation section which inspects whether fingerprint data that matches or almost matches to the fingerprint data read by the fingerprint read section is registered in the fingerprint registration data section. If the sample is a match, a determination is made as to the degree of closeness with which the sample matches, and if the sample is close enough to the other biometric templates, the sample is stored as a subsidiary template along with the other templates in association with the user in the database ([0061]-[0062] & Figure 2), which meets the limitation of a control section which registers the fingerprint data read by the fingerprint read section in the fingerprint registration data section additionally to the fingerprint data that is registered in the fingerprint registration data section and that matches or almost matches to the fingerprint data read by the fingerprint read section if the fingerprint data that

matches or almost matches to the fingerprint data read by the fingerprint read section is registered in the fingerprint registration data section. Hillhouse does not disclose deleting highly related biometric templates. Luke discloses deleting duplicate data in a file system (Col. 2, line 62 – Col. 3, line 14), which meets the limitation of deletion means for deleting the data having a general similarity that is highest among the pieces of data registered in the data section, the deletion means deletes the data having the general similarity that is highest among the pieces of data in the data section, when a number of the data in the data section exceeds a predetermined number. It would have been obvious to one of ordinary skill in the art to delete duplicate biometric templates in order to reduce the physical storage space required as taught by Luke (Col. 2, line 62 – Col. 3, line 14).

Referring to claims 4, 8, Hillhouse discloses that a comparison metric is made between all stored templates ([0069]), which meets the limitation of general similarity calculation means for calculating similarities between each of the pieces of fingerprint data registered in the fingerprint registration data section and the fingerprint data other than the each fingerprint data, respectively, and for calculating the general similarity based on the similarities.

Referring to claims 13, 18, Hillhouse discloses that if the sample is a match, a determination is made as to the degree of closeness with which the sample matches, and if the sample is close enough to the other biometric templates, the sample is stored as a subsidiary template along with the other templates in association with the user in the database ([0061]-[0062] & Figure 2), which meets the limitation of the control section registers the fingerprint data read by the fingerprint read section in the fingerprint registration data section additionally to the fingerprint data that is registered in the fingerprint registration data section and that matches

or almost matches to the fingerprint data read by the fingerprint read section in accordance with seasonal variation on the fingerprint data.

10. Claims 10, 11, 15, 16 are rejected under 35 U.S.C. 103(a) as being unpatentable over Hillhouse, U.S. Publication No. 2002/0154793, in view of Luke, U.S. Patent No. 7,130,867, and further in view of Jiang, "Online Fingerprint Template Improvement". Referring to claims 10, 11, 15, 16, Hillhouse discloses a fingerprint sample is compared against the biometric samples associated with that user that are stored in a database ([0059]-[0060] & Figure 2). Hillhouse does not disclose that this comparison is made using the mean square algorithm to compare fingerprint sample similarities. Jiang discloses utilizing the mean square algorithm to compare similarities of fingerprint samples (Page 1121, Section 2, last paragraph), which meets the limitation of the general similarity is calculated based on a mean square of a predetermined number of similarities of each fingerprint, the predetermined number of similarities of each fingerprint data is determined by calculating the similarity between two of a predetermined pieces of registered fingerprint data for all combinations of a selection of two pieces of data from the predetermined pieces plus one pieces of data. It would have been obvious to one of ordinary skill in the art at the time the invention was made for the comparisons in Hillhouse to be made using the mean square algorithm in order to reduce the computing intensity as taught by Jiang (Page 1121, Section 2, last paragraph).

Conclusion

11. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

12. Any inquiry concerning this communication or earlier communications from the examiner should be directed to BENJAMIN E. LANIER whose telephone number is (571)272-3805. The examiner can normally be reached on M-Th 7:00am-5:30pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Gilberto Barron can be reached on 571-272-3799. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Benjamin E Lanier/
Primary Examiner, Art Unit 2432